advantage of the remote call forwarding option is cost savings: it is cheaper to use switched facilities and pay on a per-call basis rather than to use a dedicated ("private line") facility and pay a flat monthly fee regardless of use. The disadvantage of the call forwarding option is reliability: with use of switched facilities, the 911 customer may face a higher risk of blockage during very busy calling periods.

Figure B-1 reflects the networking alternatives for B911 service.

#### 2. Custom 911 (C911) Service

C911 service, introduced in 1969, added the first feature to B911 service: "called party hold." With this feature, a PSAP attendant or dispatcher can hold the connection to the caller to assist in the manual tracing of the source of the call.

The provision of the "called party hold" feature requires the installation of a special trunk circuit board in each end office within the 911 service area. As a result, the only way in which this feature can be activiated is if the PSAP is connected directly to the distant end office <u>via</u> dedicated facilities. Put another way, the remote call forwarding option of B911 service is not available with C911 service.

The network configuration of C911 service is depicted in Figure B-2.

#### 3. Display 911 (D911) Service

D911 service, introduced in 1979, improves upon C911 service by forwarding to the PSAP for display the telephone number associated with the phone from which the 911 call is placed, i.e., automatic number identification ("ANI"), thus obviating the need to trace the call.5/ Like C911 service, D911 service requires the use of a special trunk circuit board in the originating end office and, as such, requires use of a dedicated facility between the PSAP and the end office.

The network configuration of D911 service is identical to C911 service, and is represented by Figure B-2.

#### 4. Enhanced 911 (E911) Service

The most sophisticated of the 911 service offerings is E911 service, introduced in 1970. With E911 service the customer has the option of obtaining two features in addition to ANI: selective routing, and automatic location identification. E911 service can currently be provided only from 1/1AESS switches.

Selective routing ensures that a 911 call is routed to the correct PSAP. Except in 1/1AESS switches equipped with the E911

<sup>5/</sup> D911 service was introduced after E911 service because of complaints by potential 911 customers about the cost of E911 service. The advantage of D911 service is that it can be provided from any switch capable of generating the ANI digits —basically any switch capable of providing "equal access."

software package, a 911 call originating from a given end office can be routed to one PSAP only. The problem with this routing scheme is that the exchange boundaries of an end office often do not coincide with the jurisdictional boundaries of the 911 customer. 6/ With selective routing, each 911 call is screened by the 1/1AESS switch so that the call can be "selectively" routed to the PSAP serving the caller's location.

Automatic location identification ("ALI") displays at the PSAP the caller's location plus other pertinent data necessary to expedite response to the emergency (e.g., whether the address is an apartment, the identity of the responsible police, fire and ambulance agency for the address shown). This information is stored in an ALI data base, owned and operated by U S WEST, that is connected to the PSAP.

Like C911 and D911 services, the provision of E911 service requires the use of dedicated facilities both between the PSAP and the selective routing office and between the selective routing switch and each end office in the 911 service area. When the 911 customer also orders the automatic location identification feature, dedicated facilities are also required between the PSAP and the serving ALI data base.

The network configuration for a typical E911 system is shown in Figure B-3.

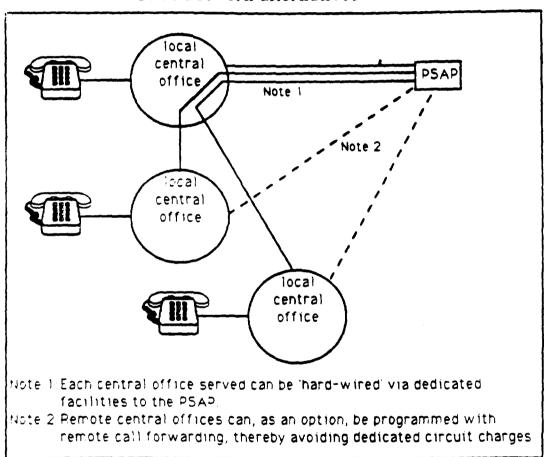
<sup>5/</sup> This is evidenced by the 911 waiver U S WEST filed on July 26, 1988 where the Bailey switch serves residents of both Park and Jefferson counties, each of which has its own fire, police and medical emergency services.

F. I L E D CA 32 -0192 -NOV 17 1988

CLERK, U.S. DISTRICT COURT

Figure: B-1

## B911 network alternatives

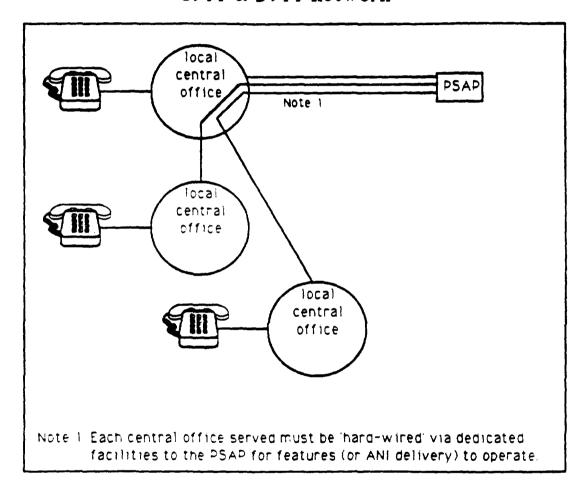


FILED CA 82 0197-NOV 17 1988

DISTRICT OF COLUMBIA

Figure: B- 2

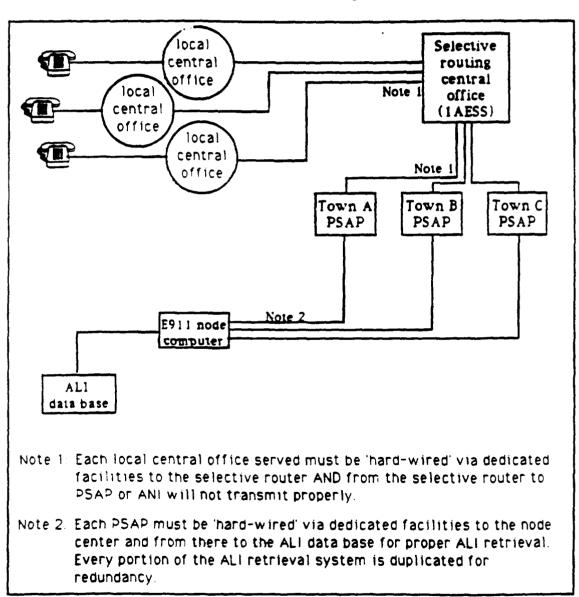
C911 & D911 network



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CLERK, U.S. DISTRICT COURT

Figure: B-3
E911 network diagram







# EXECUTIVE DEPARTMENT EMERGENCY MANAGEMENT DIVISION COMMUNICATIONS / 9-1-1 PROGRAM, PHONE (503) 373-7457 43 STATE CAPITOL, BALEM, OREGON 97910 PHONE (503) 379-4124

FILED C482-C102\_ NOV 17 1988

CLERK, U.S. DISTRICT COURT, DISTRICT OF COLUMBIA

#### MENORANDUN

September 26, 1988

To:

Vic Anderson, Telephone Utilities of Oregon Maury Astley, Oregon Independent Telephone Assn. Libby Dougan, Lincoln County Communications Agency Jerry Farr, US West Communications Linda Hemelstrand, US West Communications Pat Hickey, ATST Communications Mary Hodgin, AT&T Communications Judy Irwin, US West Communications Michael Jordan, US West Communications Dick Petrone, US West Communications Al Pipinich, Malhuer Bell Roger Ridings, US West Communications Donna Rush, City of Huntington Kenneth Sandner, Stayton Cooperative Telephone Co. Dick Slinger, Linn County Sheriff's Office Boyd Spiker, Scio Mutual Telephone Assn. Don Taylor, Interexchange Carriers Jerry Tingey, US West Communications Rod Tracy, US West Communications Gerry Wiese, Santiam Canyon Communications Center Gary Wilhelms, US West Communications

From:

David C. Yandell, Manager Communications/9-1-1 Program

Subject: Inter-LATA Services Problem

We are requesting that you or your designated representative attend a meeting to be held on Monday, October 10, 1988 at 2:00 PM in Room 454 of the State Capitol Building in Salem.

The purpose of the meeting will be to initiate a process of resolving the problem which inter-LATA transport regulations create for 9-1-1 emergency telephone service.

In Oregon, we have at least six such areas, two of which are

Interested Parties/Inter-LATA Service Problem September 26, 1988 Page 2

and to develope a better of understanding about inter-LATA service and the regulations thereof.

Should you have any questions prior to the meeting, please feel free to give me a call or contact Mr. Ken Keim, Field Coordinator with our program.

DCY:af

# ATTACHMENT D

FILED CASZ C19Z 10V 17 1988

# POTENTIAL MISMATCHES OF LATA BOUNDARIES AND 911 AREAS WITHIN THE U S WEST REGION (46) DISTRICT OF COLUMBIA

COUNTY	PSAP's LATA	OTHER LATA
Arizona (6)		
Apache	Phoenix	New Mexico
Gila	Tucson	Phoenix
Navajo	Phoenix	New Mexico
Pima	Tucson	Phoenix
Pinal	Phoenix	Tucson
Yuma	Phoenix	(?)Blythe, Calif
Colorado (10)		
Eagle	Denver	Colorado Springs
Elbert	Denver	Colorado Springs
Hinsdale	Denver	Colorado Springs
Larimer	Denver	Wyoming
Mineral	Colorado Springs	Denver
Moffet	Denver	Wyoming
Park	Colorado Springs	Denver
Routt	Denver	Wyoming & Utah
Saguache	Colorado Springs	Denver
Weld	Denver	Wyoming
Idaho (2)		
Idaho	Spokane	Idaho
Valley	Idaho	Spokane
Montana (9)		
Braodwater	Great Falls	Billings
Carter	Billings	So. Dakota &
	·	Wyoming
Fergus	Great Falls	Billings
Gallatin	Billings	Great Falls
Jefferson	Great Falls	Billings
Lincoln	Spokane	Great Falls
Meagher	Billings	Great Falls
Phillips	Great Falls	Billings
••••	nillana.	Grant Falle

## ATTACHMENT D 911/LATA MISMATCHES PAGE TWO

FILED CAR2-C192 10V 17 1988

PLERK, U.S. DISTRICT COURT DISTRICT OF COLUMBIA

COUNTY New Mexico (4)	PSAP's LATA	OTHER LATA
Eddy	New Mexico	El Paso
Dona Ana	New Mexico	El Paso
Hidalgo	New Mexico	Tucson
Otero	New Mexico	El Paso
Oregon (8)		
Klamath	Eugene	Portland
Lake	Eugene	Portland
Lincoln	Eugene	Portland
Linn	Eugene	Portland
Malhuer	Idaho	Portland
Marion	Portland	Eugene
Umatilla	Portland	Spokane
Wallowa	Portland	Spokane
Utah (2)		
Boxelder	Utah	Idaho
San Juan	Utah	New Mexico
Wyoming (5)		
Crook	Wyoming	Billings and So. Dakota
Niobara	Wyoming	Grand Island
Park	Wyoming	Billings
Platte	Wyoming	Grand Island
Teton	Wyoming	Billings

#### CERTIFICATE OF SERVICE

I, Michael F. Altschul, one of the attorneys for the United States, hereby certify that I have on this day caused to be served the Motion of the United States for a Waiver of the Modification of Final Judgment to Permit the BOCs to Provide MultiLATA 911 Service by mailing a copy, postage prepaid, to each of the individuals and organizations on the attached service list.

Michael F. Altschul

November 17, 1988

Attachment B

#### UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,

Plaintiff,

v.

WESTERN ELECTRIC COMPANY, INC., et al.,

Defendant.

Civil Action No. 82-0192

FILED

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Olerk. - Istrict Court

ORDER

Upon consideration of the United States' Motion filed on March 1, 1991, for a waiver of Section II(D) of the Modification of Final Judgment to extend existing relay services for the speech and hearing disabled to Ameritech, it is hereby

ORDERED that the United States' Motion be granted.

Harold H. Greene

United States District Judge

Dated: 1991

# UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,

Plaintiff,

v.

Civil No. 82-0192 (HHG)

WESTERN ELECTRIC COMPANY, INC., et al.

Defendants.

FILED

WAT 0 L 1991

CLERK, U.S. DISTRICT COURT DISTRICT OF COLUMBIA

MOTION AND PROPOSED ORDER OF THE UNITED STATES FOR A WAIVER OF SECTION II(D) OF THE MODIFICATION OF FINAL JUDGMENT TO EXTEND EXISTING RELAY SERVICES WAIVERS FOR SPEECH AND HEARING IMPAIRED CUSTOMERS

The United States hereby moves for an order extending the existing waivers regarding the provision of relay services for the speech and hearing disabled to American Information Technologies (Ameritech). 1/No party to the decree nor any commenter has opposed Ameritech's request. 2/ The Department

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At the Department's request, Ameritech filed a motion for this waiver pursuant to the revised waiver procedures the Department had determined to implement in light of the decision of the court of appeals in <u>United States v. Western Electric Co.</u>, 900 F. 2d 283 (D.C. Cir. 1990). The Department is filing a motion for clarification of this Court's prior orders governing waiver procedures. In the interim, the Department has determined to file its own motion pursuant to Section VII of the decree proposing that the instant unopposed "me-too" waiver be granted.

Ameritech submitted its Request for Waiver to the Department of Justice on August 1, 1990. Request Of Ameritech For A Waiver Of Section II(D) Of The Modification Of Final Judgment To Permit Ameritech To Provide Relay Services For Speech- And Hearing-Impaired Customers, (Aug. 1, 1990) ("Request Of (Footnote continued on next page.)

has concluded that this request meets the standard of section VII of the Modification of Final Judgment3/ and asks that it be granted in accordance with the procedures established by this Court in <u>United States v. Western Elec. Co.</u>, Civ. No. 82-0192, Order (Mar. 13, 1986).

On November 6, 1989, this Court granted waivers permitting Bell Atlantic and Southwestern Bell to provide relay services for users of telecommunications devices for the deaf ("TDDs") on a centralized basis and in connection with interexchange calls.4/ On November 28, 1989, this Court granted a similar waiver to NYNEX Corporation.5/ Both waivers include the identical language and, more importantly, are conditioned upon the same two requirements: that inter-LATA calls be returned from the TDD relay center to the LATA of origination to be terminated through the calling party's presubscribed

<sup>(</sup>Footnote continued from previous page.)
Ameritech"). Copies of the waiver request were filed with the Court and comments were solicited from interested persons.

<sup>3/</sup>United States v. American Tel. and Tel. Co., 552 F. Supp. 226 (D.D.C. 1982), aff'd mem. sub nom. Maryland v. United States, 460 U.S. 1001 (1983).

<sup>4/</sup>United States v. Western Elec. Co., Civ. No. 82-0192, (November 6, 1989).

<sup>5/</sup>United States v Western Elec. Co., Civ. No. 82-0192, (November 28, 1989). Although this order followed the order granting the waiver to Bell Atlantic and Southwestern Bell, NYNEX was in fact the first to request this waiver. Both waiver requests presented the Court with similar circumstances and issues.

interexchange carrier; and that the Regional Companies refrain from discriminating against any carrier in their provision of TDD relay services.

The United States now requests that Ameritech be granted a waiver permitting it to provide TDD relay systems subject to the same requirements which the Court imposed on the previous waivers. This waiver is necessary to allow Michigan Bell Telephone Company, one of Ameritech's Operating Companies, to comply with an order of the Michigan Public Service Commission directing all local exchange carriers in Michigan to establish a single, statewide dual party relay service for hearing—and/or speech—impaired persons no later than September 13, 1991.

Establishment and Operation of a Statewide Telecommunications Relay System for Persons Who Are Hearing and/or Speech Impaired, Case No. U-9117 (Mar. 13, 1990), Order at 24. Ameritech notes, however, that the waiver, if granted, will allow other states within its region that are considering implementation of TDD relay services to do so. Request Of Ameritech at 2.

Although the provision of TDD relay services constitutes the provision of information services prohibited by section II(D)(1) of the decree,  $\frac{6}{}$  the Court has on two occasions

<sup>6/</sup>The issue of whether TDD relay services constitute information services as defined in the decree was previously before this Court with respect to the July 21, 1989 motion of Bell Atlantic. Motion for a Declaratory Ruling Concerning Relay Services For Disabled Customers (July 21, 1989). The Court agreed with the Department in finding that TDD relay services were information services and thus prohibited by the decree, absent a waiver. See United States v. Western Elec. Co., Civ. No. 82-0192, (September 11, 1989).

permitted BOCs to provide such services in view of "the exceptional purpose and the limited nature of the request, and the Court's conclusion that the provision by the regional companies of TDD relay services would not impede competition in the information services market". United States v. Western Elec. Co., Civ. No. 82-0192, Memorandum at 4-5 (September 11, 1989). Allowing Ameritech to provide TDD relay services would not present competitive or other decree issues not already decided. Like waivers generally reviewed under the so-called "me-too" procedures, inclusion of Ameritech in the relay services market would raise "no factual or legal issues that are significantly different from those raised by the previously granted waiver, " and Ameritech would be "bound...to all terms and conditions imposed upon the previously approved waiver." United States v. Western Elec. Co., Civ. No. 82-0192, Order at 4 (Mar. 13, 1986). In its Request for Waiver, Ameritech states expressly its intention to comply with the conditions required under the waivers granted to Bell Atlantic, NYNEX, and Southwestern Bell.

Ameritech's request satisfies the prerequisites for the granting of a "me-too" waiver and the Department believes the limited waiver is appropriate. As in the case of the previously granted waivers, the service will be limited to a

relatively small number of low-income subscribers, and

Ameritech's provision of this service will not impede

competition in any interexchange market. Furthermore, no

interested persons have opposed the motion of the United

States. The two comments received by the Department, from the

Director of the Division on Deafness of the Michigan Commission

on Handicapped Concerns, and from the Chairperson of the

Michigan Public Service Commission, have both supported the

request.

Therefore, the Department, having reviewed Ameritech's request pursuant to the procedures established by this Court's March 13, 1986 Memorandum Order, certifies that it is identical in all respects to the waivers previously granted to Bell Atlantic, Southwestern Bell, and NYNEX; that Ameritech agrees to be bound to all terms and conditions imposed on those waivers; and that the Department believes that the requested waiver raises no factual or legal issues significantly different from those raised by the previous waivers. As the previous waivers were each carefully considered by the Department and the Court and were found to satisfy the section VIII(C) standard, the Department respectfully requests that its motion be granted.

For the reasons set forth herein and in the memorandum of Ameritech filed in support of its motion for this relief, the Court should enter the attached proposed order granting a waiver to Ameritech for the provision of TDD relay services.

Respectfully submitted,

Constance K. Robinson Chief

Jennifer L Otto

Communications and Finance Section Antitrust Division Department of Justice 555 Fourth Street, N.W. Washington, D.C. 20001 (202) 514-5640

Dated: March 1, 1991

CA: 82-0192 HHG

#### UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	
Plaintiff,	
v. (	Civil Action 82-0192-HHG
WESTERN ELECTRIC COMPANY, ) INC., et al.,	
Defendants. )	FILED

\*/ASH 0 1 1991

#### **CERTIFICATE**

CLERK, U.S. DISTRICT COURT

The Department of Justice has reviewed the unopposed request from Ameritech for a waiver of Section II(D) of the Decree that would allow Ameritech to provide relay services for users of telecommunications devices for the deaf, and has determined that the request is identical in all respects to the waivers the Court has previously granted to Bell Atlantic, Southwestern Bell, and NYNEX pursuant to the standards set forth in Section VII of the Modification of Final Judgment.

Ameritech has submitted the request stating that its request is identical in all respects to the TDD relay services waivers previously granted by the Court, and agrees to be bound by all terms and conditions imposed upon the previously approved waivers.

The Department believes that the requested waiver raises no factual or legal issues that are significantly different from those raised by the previously approved waivers.

Constance K. Robinson, Chief Communications and Finance Section, Antitrust Division

Date: <u>3///9/</u>

STATE OF MICHIGAN



MICHIGAN COMMISSION ON HANDICAPPER CONCERNS
309 N. WASHINGTON AVENUE. BOX 30015
LANSING, MICHIGAN 48509

(517) 373-8397 (voice and TTY)

JAMES J. BLANCHARD, Governor

### DEPARTMENT OF LABOR

ELIZABETH P HOWE, Director

FILED

Macomene

August 7, 1990

MAR 0 1 1991

CLERK, U.S. DISTRICT COURT DISTRICT OF COLUMBIA

Nancy C. Garrison, Esq.
Assistant Chief, Communications and
Finance, Anti-trust Division
U.S. Department of Justice
Judiciary Center Building
55 Fourth Street, N.W.
Washington, D.C. 20001

Dear Ms. Garrison:

The Division on Deafness is an agency within the Department of Labor devoted to the concerns of deaf and hard of hearing citizens of Michigan. On August 1, 1990 I attended the Michigan Dual Party Relay Service Advisory Board and learned that Ameritech filed for a waiver with the Department of Justice on behalf of Michigan Bell Telephone Company. If granted, Michigan Bell will be allowed to provide dual party relay service on the same basis as Bell Atlantic, Southwestern Bell and NYNEX.

On behalf of the Division on Deafness, I wish to express my support for the waiver that would give Michigan Bell the opportunity to provide the relay service in Michigan. We were involved in the research for a relay service and provided testimony to support the establishment of a relay service in Michigan. We compared relay services provided by non-profit private agencies and those by telephone companies in other states. We strongly believe quality relay service would be better handled by a local telephone company.

Thank you for taking this into consideration.

Sincerely,

Christopher Hunter

Director

FML: rms

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RECEIVED



PUBLIC SERVICE COMMISSION 6545 Mercantile Way

P.O. Box 30221 Lansing, Michigan 48909

JAMES J. BLANCHARD, Governor

# DEPARTMENT OF COMMERCE

LARRY L MEYER, Director

September 7, 1990

Nancy C. Garrison, Esq.
Assistant Chief, Communications and
Finance Section, Antitrust Division
U.S. Department of Justice
Judiciary Center Building
55 Fourth Street, N.W.
Washington, D.C. 20001

Dear Ms. Garrison:

On August 1, 1990 Ameritech filed a request for a waiver of Section II(D) of the Modification of Final Judgement to permit Ameritech to provide relay services for speech- and hearing-impaired customers.

On March 13, 1990 the Michigan Public Service Commission ordered the Michigan local exchange carriers to establish, within 18 months, a single statewide dual party relay service for hearing- and/or speech-impaired persons. The order further stated that any local exchange carrier could seek to establish and operate the system with which the others could contract, or it may make more sense for all of the local exchange carriers to contract with a third-party vendor for operation of the system.

The Commission believes that Michigan's hearing- and/or speech-impaired citizens should be afforded reasonable access to the state's telecommunications network in a manner as close to that enjoyed by hearing persons as is economically and technically possible. Considerable efforts have been undertaken by the local exchange carriers in Michigan, with Michigan Bell Telephone Company taking the lead role, in order to implement this system for the benefit of the hearing- and/or speech-impaired community.

The Michigan Public Service Commission therefore supports this waiver as it pertains to Michigan Bell. The granting of the waiver will allow the local exchange carriers in





Nancy C. Garrison Page 2

Michigan the opportunity to examine all available alternatives in order to provide the highest quality service at the most economical cost.

Sincerely,

William E. Long

Chairperson

#### CERTIFICATE OF SERVICE

I, Thomas R. Waddell, hereby certify under penalty of perjury that I am not a party to this action, that I am not less than 18 years of age, and that I have on this day caused the MOTION AND PROPOSED ORDER OF THE UNITED STATES FOR A WAIVER OF SECTION II(D) OF THE MODIFICATION OF FINAL JUDGMENT TO EXTEND EXISTING RELAY SERVICES WAIVERS FOR SPEECH AND HEARING IMPAIRED CUSTOMERS, by mailing a copy, postage prepaid, to each of the individuals and organizations on the attached service list.

Thomas R. Waddell